



SEQUENCE LISTING

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Okabe, Hidetoshi
Ikegawa, Shiro

<120> RB1 gene induced protein (RB1CC1) and gene

<130> 3190-070

<140> US 10/516,558

<141> 2004-11-30

<150> PCT/JP03/00882

<151> 2003-01-30

<150> JP P2002-161400

<151> 2002-06-03

<150> JP P2002-214978

<151> 2002-07-24

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<170> PatentIn version 3.1

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Gly Gly Glu Cys Met Ala Ala Asp Arg Arg Val Cys Thr Tyr Ser Ala
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Gly Thr Asp Thr Asn Pro Ile Phe Leu Phe Asn Lys Glu Met Ile Leu
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Cys Asp Arg Pro Pro Ala Ile Pro Lys Thr Thr Phe Ser Thr Glu Asn
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Asp Met Glu Ile Lys Val Glu Glu Ser Leu Met Met Pro Ala Val Phe
 100 105 110

His Thr Val Ala Ser Arg Thr Gln Leu Ala Leu Glu Met Tyr Glu Val
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Ala Lys Lys Leu Cys Ser Phe Cys Glu Gly Leu Val His Asp Glu His
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Leu Gln His Gln Gly Trp Ala Ala Ile Met Ala Asn Leu Glu Asp Cys
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Ser Asn Ser Tyr Gln Lys Leu Leu Phe Lys Phe Glu Ser Ile Tyr Ser
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Asn Tyr Leu Gln Ser Ile Glu Asp Ile Lys Leu Lys Leu Thr His Leu
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Gly Thr Ala Val Ser Val Met Ala Lys Ile Pro Leu Leu Glu Cys Leu
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Thr Arg His Ser Tyr Arg Glu Cys Leu Gly Arg Leu Asp Ser Leu Pro
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Glu His Glu Asp Ser Glu Lys Ala Glu Thr Lys Arg Ser Thr Glu Leu
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Val Leu Ser Pro Asp Met Pro Arg Thr Thr Asn Glu Ser Leu Leu Thr
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Ser Phe Pro Lys Ser Val Glu His Val Ser Pro Asp Thr Ala Asp Ala
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Glu Ser Gly Lys Glu Ile Arg Glu Ser Cys Gln Ser Thr Val His Gln
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Gln Asp Glu Thr Thr Ile Asp Thr Lys Asp Gly Asp Leu Pro Phe Phe
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Asn Val Ser Leu Leu Asp Trp Ile Asn Val Gln Asp Arg Pro Asn Asp
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Val Glu Ser Leu Val Arg Lys Cys Phe Asp Ser Met Ser Arg Leu Asp
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Pro Arg Ile Ile Arg Pro Phe Ile Ala Glu Cys Arg Gln Thr Ile Ala
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Lys Leu Asp Asn Gln Asn Met Lys Ala Ile Lys Gly Leu Glu Asp Arg
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Leu Tyr Ala Leu Asp Gln Met Ile Ala Ser Cys Gly Arg Leu Val Asn
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Glu Gln Lys Glu Leu Ala Gln Gly Phe Leu Ala Asn Gln Lys Arg Ala
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Glu Asn Leu Lys Asp Ala Ser Val Leu Pro Asp Leu Cys Leu Ser His
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Ala Asn Gln Leu Met Ile Met Leu Gln Asn His Arg Lys Leu Leu Asp
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Ile Lys Gln Lys Cys Thr Thr Ala Lys Gln Glu Leu Ala Asn Asn Leu
435 440 445

His Val Arg Leu Lys Trp Cys Cys Phe Val Met Leu His Ala Asp Gln
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Asp Gly Glu Lys Leu Gln Ala Leu Leu Arg Leu Val Ile Glu Leu Leu
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Glu Arg Val Lys Ile Val Glu Ala Leu Ser Thr Val Pro Gln Met Tyr
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Cys Leu Ala Val Val Glu Val Val Arg Arg Lys Met Phe Ile Lys His
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Tyr Arg Glu Trp Ala Gly Ala Leu Val Lys Asp Gly Lys Arg Leu Tyr
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Glu Ala Glu Lys Ser Lys Arg Glu Ser Phe Gly Lys Leu Phe Arg Lys
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Ser Phe Leu Arg Asn Arg Leu Phe Arg Gly Leu Asp Ser Trp Pro Pro
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Ser Phe Cys Thr Gln Lys Pro Arg Lys Phe Asp Cys Glu Leu Pro Asp
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Ile Ser Leu Lys Asp Leu Gln Phe Leu Gln Ser Phe Cys Pro Ser Glu
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Val Gln Pro Phe Leu Arg Val Pro Leu Leu Cys Asp Phe Glu Pro Leu
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His Gln His Val Leu Ala Leu His Asn Leu Val Lys Ala Ala Gln Ser
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Leu Asp Glu Met Ser Gln Thr Ile Thr Asp Leu Leu Ser Glu Gln Lys
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Ala Ser Val Ser Gln Thr Ser Pro Gln Ser Ala Ser Ser Pro Arg Met
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Glu Ser Thr Ala Gly Ile Thr Thr Thr Thr Ser Pro Arg Thr Pro Pro
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Pro Leu Thr Val Gln Asp Pro Leu Cys Pro Ala Val Cys Pro Leu Glu
675 680 685

Glu Leu Ser Pro Asp Ser Ile Asp Ala His Thr Phe Asp Phe Glu Thr
690 695 700

Ile Pro His Pro Asn Ile Glu Gln Thr Ile His Gln Val Ser Leu Asp
705 710 715 720

Leu Asp Ser Leu Ala Glu Ser Pro Glu Ser Asp Phe Met Ser Ala Val
725 730 735

Asn Glu Phe Val Ile Glu Glu Asn Leu Ser Ser Pro Asn Pro Ile Ser
740 745 750

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Lys	Glu	Asp	Phe	Gly	Asp	His	Thr	Ser	Leu	Asn	Val	Gln	Leu	Glu	Arg	785	790	795
Cys	Arg	Val	Val	Ala	Gln	Asp	Ser	His	Phe	Ser	Ile	Gln	Thr	Ile	Lys	805	810	815
Glu	Asp	Leu	Cys	His	Phe	Arg	Thr	Phe	Val	Gln	Lys	Glu	Gln	Cys	Asp	820	825	830
Phe	Ser	Asn	Ser	Leu	Lys	Cys	Thr	Ala	Val	Glu	Ile	Arg	Asn	Ile	Ile	835	840	845
Glu	Lys	Val	Lys	Cys	Ser	Leu	Glu	Ile	Thr	Leu	Lys	Glu	Lys	His	Gln	850	855	860
Lys	Glu	Leu	Leu	Ser	Leu	Lys	Asn	Glu	Tyr	Glu	Gly	Lys	Leu	Asp	Gly	865	870	875
Leu	Ile	Lys	Glu	Thr	Glu	Glu	Asn	Glu	Asn	Lys	Ile	Lys	Lys	Leu	Lys	885	890	895
Gly	Glu	Leu	Val	Cys	Leu	Glu	Glu	Val	Leu	Gln	Asn	Lys	Asp	Asn	Glu	900	905	910
Phe	Ala	Leu	Val	Lys	His	Glu	Lys	Glu	Ala	Val	Ile	Cys	Leu	Gln	Asn	915	920	925
Glu	Lys	Asp	Gln	Lys	Leu	Leu	Glu	Met	Glu	Asn	Ile	Met	His	Ser	Gln	930	935	940
Asn	Cys	Glu	Ile	Lys	Glu	Leu	Lys	Gln	Ser	Arg	Glu	Ile	Val	Leu	Glu	945	950	955
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Asp His Arg Val Ser Leu Glu Glu Leu Lys Lys Glu Asn Gln Gln
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His Glu Glu Glu Ser Asn Ile Leu Lys Ala Glu Leu Asn Lys Val
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Thr Ser Leu His Asn Gln Ala Phe Glu Ile Glu Lys Asn Leu Lys
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Glu Gln Ile Ile Glu Leu Gln Ser Lys Leu Asp Ser Glu Leu Ser
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Tyr	Cys	Gln	Ala	Lys	Lys	Ala	Gln	Asn	Arg	Phe	Lys	Val	Pro	Leu
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Gly Gly Glu Cys Met Ala Ala Asp Arg Arg Val Cys Thr Tyr Ser Ala
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Gly Thr Asp Thr Asn Pro Ile Phe Leu Phe Asn Lys Glu Met Ile Leu
65 70 75 80

Cys Asp Arg Ala Pro Ala Ile Pro Lys Ala Thr Phe Ser Thr Glu Asn
85 90 95

Asp Met Glu Ile Lys Val Glu Glu Ser Leu Met Met Pro Ala Val Phe
100 105 110

His Thr Val Ala Ser Arg Thr Gln Leu Ala Val Glu Met Tyr Asp Val
115 120 125

Ala Lys Lys Leu Cys Ser Phe Cys Glu Gly Leu Val His Asp Glu His
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Leu Gln His Gln Gly Trp Ala Ala Ile Met Ala Asn Leu Glu Asp Cys
145 150 155 160

Ser Asn Ser Tyr Gln Lys Leu Leu Phe Lys Phe Glu Ser Ile Tyr Ser
165 170 175

Asp Tyr Leu Gln Ser Ile Glu Asp Ile Lys Leu Lys Leu Thr His Leu
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Gly Thr Ala Val Ser Val Met Ala Lys Ile Pro Leu Leu Glu Cys Leu
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Thr Arg His Ser Tyr Arg Glu Cys Leu Gly Arg Pro Asp Ser Leu Asn
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Glu His Glu Gly Ser Glu Lys Ala Glu Met Lys Arg Ser Thr Glu Leu
 225 230 235 240

Val Leu Ser Pro Asp Met Pro Arg Thr Thr Asn Thr Ser Leu Val Thr
 245 250 255

Ser Phe His Lys Ser Met Glu His Val Ala Pro Asp Pro Thr Gly Thr
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Glu Arg Gly Lys Glu Leu Arg Glu Ser Cys Gln Ser Thr Val Gln Gln
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Glu Glu Ala Ser Val Asp Ala Lys Asp Ser Asp Leu Pro Phe Phe Asn
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Glu Ser Leu Val Arg Lys Cys Phe Asp Ser Met Ser Arg Leu Asp Pro
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Leu Asp Asn Gln Asn Met Lys Ala Ile Lys Gly Leu Glu Asp Arg Leu
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Tyr Ala Leu Asp Gln Met Ile Ala Ser Cys Ser Arg Leu Val Asn Glu
 370 375 380

Gln Lys Glu Leu Ala Gln Gly Phe Leu Ala Asn Gln Met Arg Ala Glu
 385 390 395 400

Asn Leu Lys Asp Ala Ser Val Leu Pro Asp Leu Cys Leu Ser His Ala
 405 410 415

Asn Gln Leu Met Ile Met Leu Gln Asn His Arg Lys Leu Leu Asp Ile
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Lys Gln Lys Cys Thr Thr Ala Lys Gln Glu Leu Ala Asn Asn Leu His
 435 440 445

Val Arg Leu Lys Trp Cys Cys Phe Val Met Leu His Ala Asp Gln Asp
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Gly Glu Lys Leu Gln Ala Leu Leu Arg Leu Val Ile Glu Leu Leu Glu
 465 470 475 480

Arg Val Arg Ile Val Glu Ala Leu Ser Thr Val Pro Gln Met Tyr Cys
 485 490 495

Leu Ala Val Val Glu Val Val Arg Arg Lys Met Phe Ile Lys His Tyr
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Arg Glu Trp Ala Gly Ala Leu Val Lys Asp Gly Lys Gln Leu Tyr Glu
 515 520 525

Ala Glu Lys Ser Lys Arg Glu Ser Phe Gly Lys Leu Phe Arg Lys Ser
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Phe Leu Arg Asn Arg Leu Phe Lys Gly Leu Asp Ser Trp Pro Ser Ser
 545 550 555 560

Phe Cys Thr Gln Lys Pro Arg Lys Phe Asp Cys Glu Leu Pro Asp Ile
 565 570 575

Ser Leu Lys Asp Leu Gln Phe Leu Gln Ser Phe Cys Pro Ser Glu Val
 580 585 590

Gln Pro Phe Leu Arg Val Pro Leu Leu Cys Asp Phe Glu Pro Leu His
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Gln His Val Leu Ala Leu His Asn Leu Val Lys Ala Ala Gln Ser Leu
 610 615 620

Asp Glu Met Ser Gln Thr Ile Thr Asp Leu Leu Asn Glu Gln Lys Val
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Ser Thr Ser Gln Ala Ser Pro Gln Ser Ala Ala Ser Pro Arg Ile Glu
645 650 655

Ser Thr Thr Gly Ile Thr Thr Thr Thr Ser Pro Lys Thr Pro Pro Pro
660 665 670

Leu Thr Val Gln Asp Thr Leu Cys Pro Ala Val Cys Pro Leu Glu Glu
675 680 685

Leu Ser Pro Asp Ser Ile Asp Ala His Thr Phe Asp Phe Glu Thr Ile
690 695 700

Ser His Pro Asn Thr Glu Gln Pro Val His Gln Ala Ser Ile Asp Leu
705 710 715 720

Asp Ser Leu Ala Glu Ser Pro Glu Ser Asp Phe Met Ser Ala Val Asn
725 730 735

Glu Phe Val Ile Glu Glu Asn Leu Ser Ser Pro Asn Pro Ile Ser Asp
740 745 750

Pro Gln Ser Pro Glu Met Met Val Glu Ser Leu Tyr Ser Ser Val Ile
755 760 765

Asn Ala Ile Asp Ser Arg Arg Met Gln Asp Thr Ser Thr Arg Gly Asn
770 775 780

Glu Gly Phe Gly Asp Arg Ala Ala Leu His Val Gln Leu Glu Lys Cys
785 790 795 800

Arg Ala Ala Ala Gln Asp Ser His Thr Ser Ile Gln Thr Ile Lys Asp
805 810 815

Asp Leu Cys His Phe Arg Thr Phe Val Gln Lys Glu Gln Cys Asp Leu
820 825 830

Ala Asn Tyr Leu Lys Cys Thr Ala Val Glu Ile Arg Asn Ile Ile Glu
835 840 845

Lys Val Lys Cys Ser Leu Glu Ile Thr Leu Lys Glu Lys His Gln Gln
850 855 860

Glu Leu Gln Ser Leu Lys Ile Glu Tyr Glu Cys Lys Leu Asp Ala Leu
 865 870 875 880

Val Lys Asp Ser Glu Glu Asn Val Asn Lys Ile Leu Lys Leu Lys Glu
 885 890 895

Asn Leu Val Ser Leu Glu Glu Ala Leu Gln Asn Lys Asp Asn Glu Phe
 900 905 910

Thr Ser Ile Lys His Glu Lys Asp Ala Ile Val Cys Val Gln Gln Glu
 915 920 925

Lys Asp Gln Lys Leu Leu Glu Met Glu Lys Ile Met His Thr Gln His
 930 935 940

Cys Glu Ile Lys Glu Leu Lys Gln Ser Arg Glu Met Ala Leu Glu Asp
 945 950 955 960

Leu Lys Lys Leu His Asp Glu Lys Ile Glu Ser Leu Arg Ala Glu Phe
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Gln Cys Leu Glu Glu Asn His Leu Lys Glu Leu Glu Asp Thr Leu His
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Ile Arg His Thr Gln Glu Phe Glu Lys Val Met Thr Asp His Asn Met
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Leu Gln Glu Leu Lys Leu Lys Val Ser Asp Leu Ser Asp Met Arg
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Cys Lys Leu Glu Val Glu Leu Ala Leu Lys Glu Ala Glu Thr Asp
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Glu Ile Lys Ile Leu Leu Glu Glu Ser Arg Thr Gln Gln Lys Glu
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Tyr	Gln	Val	Gly	Leu	Ser	Glu	Leu	Arg	Ala	Leu	Met	Thr	Ile	Glu
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Gln Gln	Thr Asn Phe Asn Thr	Val Leu Thr Arg	Glu	Lys Met Arg
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Met Gln	Gln Gln Glu Arg Asp	Lys Asp Leu Ile	Glu	Ser Leu Ser
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Glu Val	Ser Lys Leu Arg Thr	Ser Ser Phe Leu	Ser	Ser Ala Pro
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Pro Gly	Glu Pro Glu Arg Ser	Val Met Glu Thr	Ala	Asp Glu Gly
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<210> 100
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